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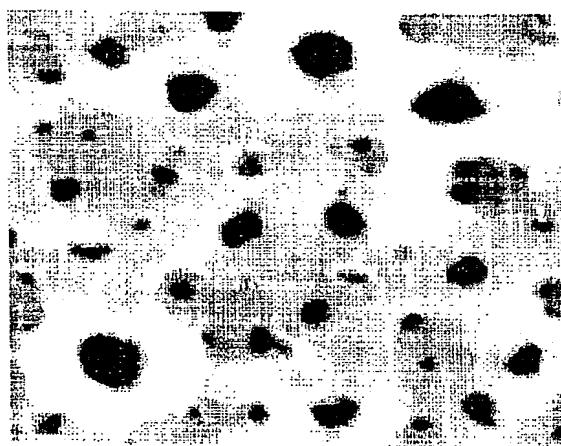
(72) Inventor: **SUL, Young-Taek [KR/SE]; 101-501, Woosung Apt., 83-3, Pungho-dong, Jinhae-si, 645-750 Gyeongsangnam-Do (KR).**

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(74) Agent: **PARK, Hyeong-Keun; 4th Floor, Woosung Bldg., 1571-14, Seocho 3-dong, Seocho-gu, Seoul 137-874 (KR).**

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(54) Title: OSSEOINDUCTIVE MAGNESIUM-TITANATE IMPLANT AND METHOD OF MANUFACTURING THE SAME



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(57) Abstract: The present invention relates to a magnesium titanate oxide film implant for insertion into a living body, utilized in medical fields such as dentistry, orthopedic surgery, maxillofacial surgery and plastic surgery, and a method for preparing the same. The magnesium titanate oxide film implant in accordance with the present invention is prepared by forming a titanium oxide film (a magnesium titanate oxide film) in which magnesium is incorporated into the surface of titanium or a titanium alloy. A process for preparing a magnesium titanate oxide film implant in accordance with the present invention comprises irradiating UV light on an implant body made of titanium or a titanium alloy in distilled water for more than 2 hours; dipping the UV light-irradiated implant body in an electrolyte solution containing magnesium; and coating a magnesium titanate oxide film on the dipped implant body by anodic oxidation at a voltage of 60 to 500 V. Therefore, the present invention can provide an implant having increased bioactivity of a titanium oxide film formed by anodic oxidation, and provides an optimum magnesium titanate oxide ( $Ti_xMg_yO_z$ ) thickness for successful osseointegration of the magnesium titanate ( $Ti_xMg_yO_z$ ) implant.